

FEATURES

- Bipolar output: Max. ± 5 kV / 200 μ A
- High-speed response: 250 μ s Typ. (Rise / Fall)
- Equipped with output monitor (Voltage / Current)
- Equipped with output current limit function
- Compact size and lightweight: 390 g

APPLICATIONS

- Mass spectrometry
- Scanning electron microscope
- Electrostatic clamping holder
- Cell sorter



SPECIFICATIONS

Parameter		Description / Value ^①	Unit
Input voltage		+24 $\pm$ 1.2	V
Input current ^{②④⑤⑥}		300	mA
Output controlling voltage		-10 to +10	V
Output controlling voltage input impedance		80	k Ω
Output voltage ^③		-5000 to +5000	V
Line regulation (+22.8 V to +25.2 V input change) ^{④⑤}		$\pm$ 0.01	%
Load regulation (0 % to 100 % load change) ^④		$\pm$ 0.01	%
Temperature coefficient ^{④⑤}		$\pm$ 0.05	%/ $^{\circ}$ C
Ripple / Noise (p-p) ^{④⑤}	Max.	3	V
Response time (10 % $\leftrightarrow$ 90 %, Rise/Fall) ^{④⑤}		250	μ s
Output current ^{④⑤⑥}	Max.	200	μ A
Current limit controlling voltage (20 μ A/V)		0 to +10	V
Voltage monitor	Range	-10 to +10	V
	Accuracy	5	%
Current monitor	Range	-10 to +10	V
	Accuracy	5	%
Reference voltage (Vref)	Positive	+11.2	V
	Negative	-11.2	
Enable signal		TTL positive logic	—
Operating ambient temperature		0 to +50	$^{\circ}$ C
Operating ambient humidity ^⑦		Below 80	%
Storage temperature		-40 to +70	$^{\circ}$ C
Storage humidity ^⑦		Below 80	%
Weight		390	g
Protective functions		Installed input FUSE / Power input protection / Output overcurrent protection	—

NOTE: ① The specification table is typical value unless there is a definition such as "Max."

② Input voltage +24 V

③ Load capacity 100 pF or less

④ At maximum output voltage

⑤ At maximum output current

⑥ When the current limit signal is OPEN

⑦ No condensation

⑧ High voltage cable attached (Length: 1 m)

HIGH VOLTAGE POWER SUPPLY C14921-01

Figure 1: Controlling voltage vs output voltage

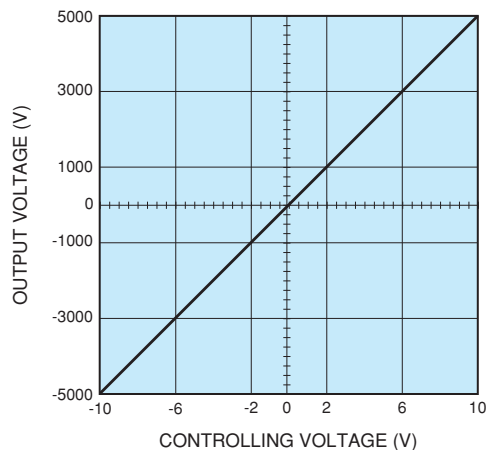


Figure 2: Monitor voltage vs output voltage

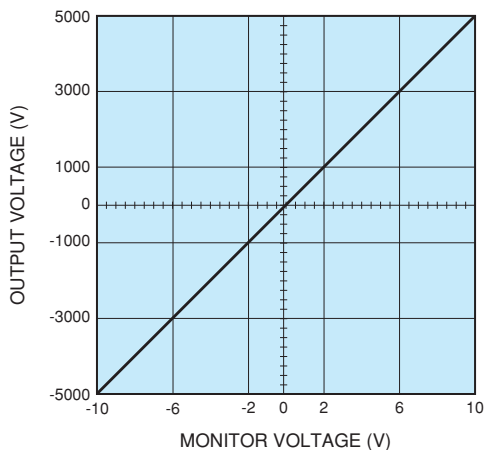


Figure 3: Monitor voltage vs output current

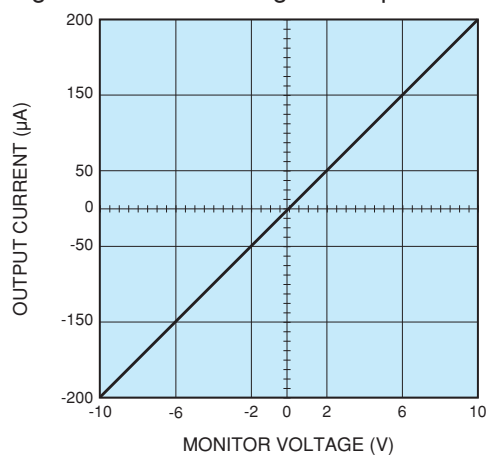


Figure 4: Rise time (-5 kV to +5 kV)

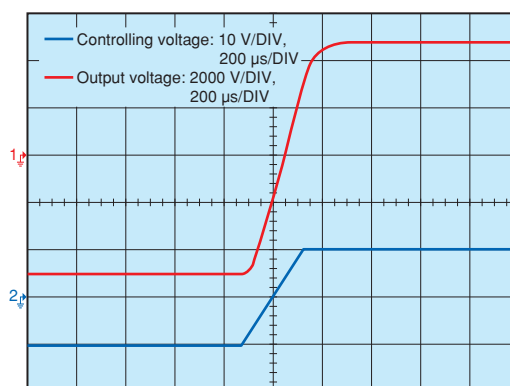


Figure 5: Frequency response (for 100 Hz sine wave)

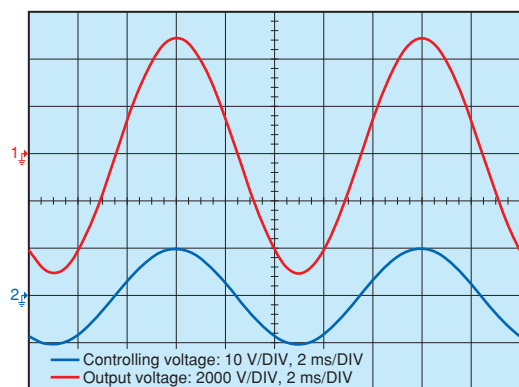


Figure 6: Ripple / Noise

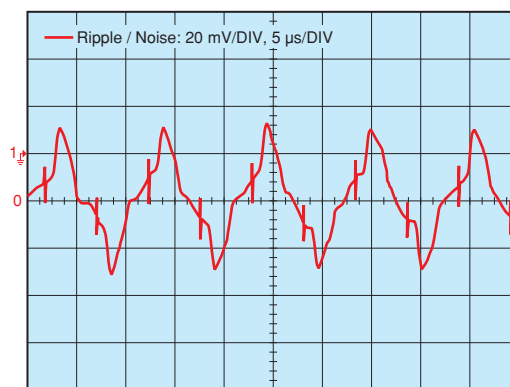
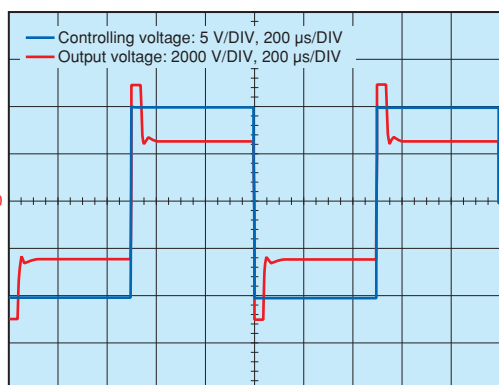


Figure 7: Current limiter response *



* At maximum load, when the current limit Controlling voltage = +5 V (current limit 100 μA setting)

Figure 8: Output voltage control

●By external voltage

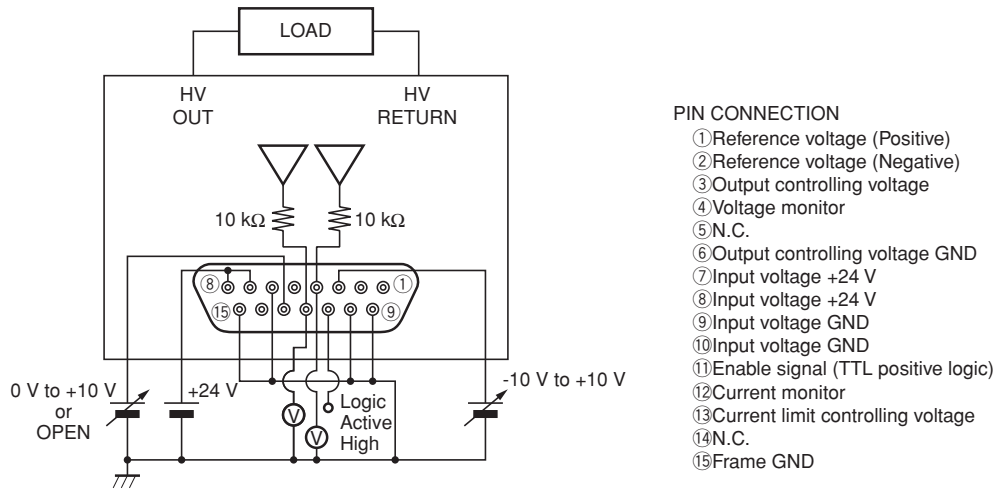
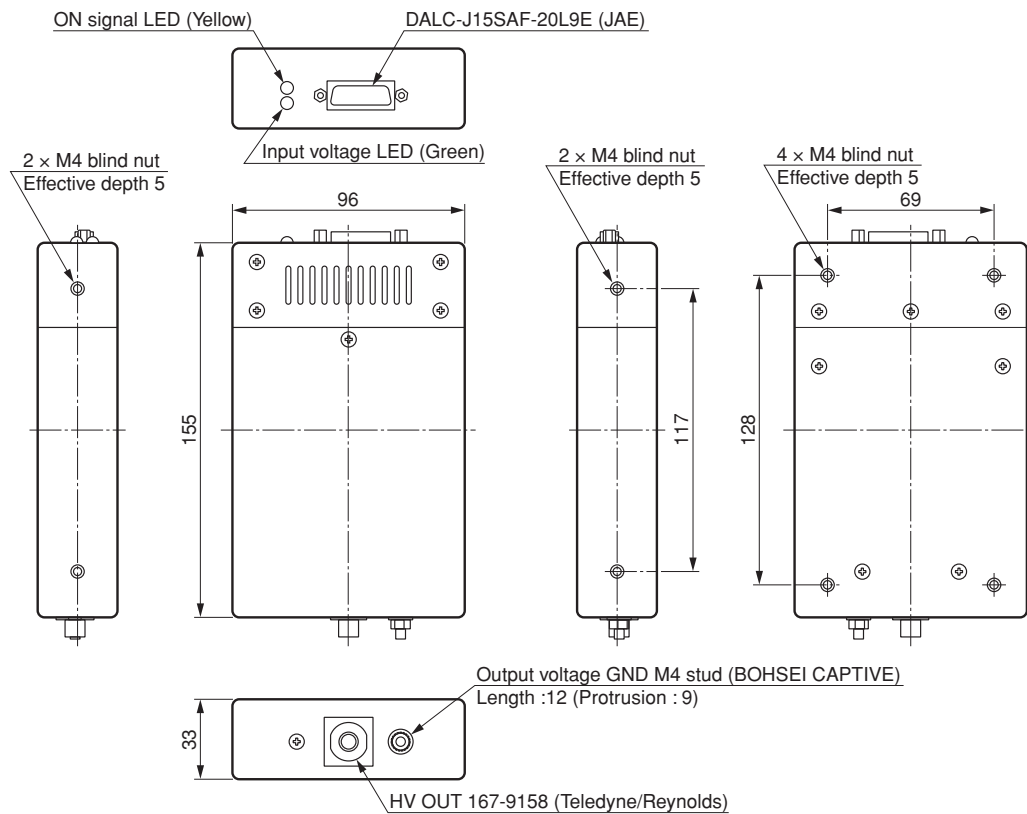
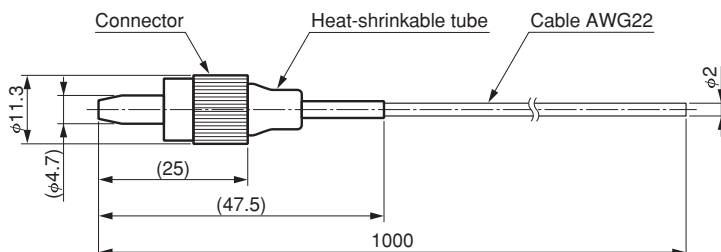


Figure 9: Dimensional outline (Unit: mm)

●Main unit



●High voltage cable for HV OUT (1 m)



HIGH VOLTAGE POWER SUPPLY C14921-01

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: HAMAMATSU CORPORATION: 360 Foothill Road, Bridgewater, NJ 08807, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: usa@hamamatsu.com

Germany: HAMAMATSU PHOTONICS DEUTSCHLAND GMBH.: Arzbergerstr. 10, 82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-265-8 E-mail: info@hamamatsu.de

France: HAMAMATSU PHOTONICS FRANCE S.A.R.L.: 19 Rue du Saule Trappu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: infos@hamamatsu.fr

United Kingdom: HAMAMATSU PHOTONICS UK LIMITED: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire, AL7 1BW, UK, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: HAMAMATSU PHOTONICS NORDEN AB: Torshamnsgatan 35, 16440 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: info@hamamatsu.se

Italy: HAMAMATSU PHOTONICS ITALIA S.R.L.: Strada della Moia, 1 int. 6 20044 Arese (Milano), Italy, Telephone: (39)02-93 58 17 33, Fax: (39)02-93 58 17 41 E-mail: info@hamamatsu.it

China: HAMAMATSU PHOTONICS (CHINA) CO., LTD.: 1201, Tower B, Jiaming Center, 27 Dongsanhuan Beilu, Chaoyang District, 100020 Beijing, P.R. China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn

Taiwan: HAMAMATSU PHOTONICS TAIWAN CO., LTD.: 8F-3, No.158, Section 2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886)3-659-0080, Fax: (886)3-659-0081 E-mail: info@hamamatsu.com.tw

TACC1091E02
DEC. 2022 IP